

## Title (en)

Encoder for digital data storage

## Title (de)

Kodierer für digitale Datenspeicherung

## Title (fr)

Codeur pour mémoire de données numériques

## Publication

**EP 1256951 A1 20021113 (EN)**

## Application

**EP 02018020 A 19970207**

## Priority

- EP 97907578 A 19970207
- US 59914696 A 19960209
- US 59914996 A 19960209

## Abstract (en)

A variable rate bit inserter is provided which efficiently encodes data prior to writing a magnetic storage medium. In a preferred embodiment, the bit insertion technique monitors the phase and amplitude content of the data stream and inserts appropriate bit patterns to ensure that phase and amplitude lock are maintained on the data stream for reading and decoding purposes. Preferably, the number of bit insertions made on a given randomized block of data is monitored to determine if the number of bit insertions falls within the tolerable limits for storing the data. If the number of bit insertions is not tolerable, the pseudo-random code used to randomize the data stream is reconfigured. <IMAGE>

## IPC 1-7

**G11B 20/10**; **G11B 20/14**

## IPC 8 full level

**G11B 20/10** (2006.01); **G11B 20/14** (2006.01); **G11B 20/18** (2006.01); **H03M 13/15** (2006.01); **H03M 13/29** (2006.01); **H03M 13/41** (2006.01); **H03M 13/47** (2006.01)

## CPC (source: EP)

**G11B 20/10** (2013.01); **G11B 20/10009** (2013.01); **G11B 20/14** (2013.01); **G11B 20/1426** (2013.01); **G11B 20/1833** (2013.01); **H03M 13/15** (2013.01); **H03M 13/1515** (2013.01); **H03M 13/2707** (2013.01); **H03M 13/41** (2013.01); **H03M 13/47** (2013.01); **G11B 2020/1434** (2013.01)

## Citation (search report)

- [YA] WO 9407332 A1 19940331 - SONY CORP [JP]
- [YA] EP 0310057 A2 19890405 - NEC CORP [JP]
- [A] EP 0593173 A2 19940420 - MATSUSHITA ELECTRIC IND CO LTD [JP]
- [A] EP 0511498 A2 19921104 - TOSHIBA KK [JP]
- [A] EP 0347934 A2 19891227 - SONY CORP [JP]
- [A] PATENT ABSTRACTS OF JAPAN vol. 95, no. 7 31 August 1995 (1995-08-31)
- [A] PATENT ABSTRACTS OF JAPAN vol. 18, no. 417 (P - 1781) 4 August 1994 (1994-08-04)

## Citation (examination)

EP 0597443 A1 19940518 - SONY CORP [JP]

## Designated contracting state (EPC)

AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

## DOCDB simple family (publication)

**WO 9729486 A2 19970814**; **WO 9729486 A3 19971023**; AU 1955097 A 19970828; AU 733663 B2 20010517; CA 2246423 A1 19970814; CA 2246423 C 20040803; CN 1135549 C 20040121; CN 1215495 A 19990428; EP 0879464 A2 19981125; EP 1256951 A1 20021113; HK 1019654 A1 20000218; JP 2001518224 A 20011009; JP 3935942 B2 20070627; RU 98116742 A 20000627

## DOCDB simple family (application)

**US 9702010 W 19970207**; AU 1955097 A 19970207; CA 2246423 A 19970207; CN 97193708 A 19970207; EP 02018020 A 19970207; EP 97907578 A 19970207; HK 99104755 A 19991025; JP 52869497 A 19970207; RU 98116742 A 19980909